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REMARKS

Claims 11-14, 16, 17 and 19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons noted in the official action. The rejected claims are accordingly amended, by the above claim amendments in accordance with the Examiner's suggestions from Page 2 of the Official Action, and the presently pending claims are now believed to particularly point out and distinctly claim the subject matter regarded as the invention, thereby overcoming all of the raised § 112, second paragraph, rejections.

Claims 11-13 and 19 are rejected, under 35 U.S.C. § 102(b), as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Paeglis et al '516. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

The Examiner indicates that the example 3 in Paeglis et al '516, having about 43 weight % of low melting EPDM and 57 weight % of high melting EPDM, would be inherently plasticized at 30°C to 65°C and at 60°C under the recited pressure. The Applicant has made a thorough study of this reference in particular Table II and example 3, and cannot find any disclosure relative to such an assertion. Neither the example in column 9, nor the table II disclose, teach or suggest any temperature range, much less the recited temperature range of claim 19 in which the composition would be pasticized, i.e. obtain a plastic flow. Furthermore, the flow index FI in Table II indicates that in fact no flow is occurring under ASTM D-1238, Condition F, at 190 C and 21.6 kg.

As the Examiner is aware in order to properly support an anticipation rejection under 35 U.S.C 102(b), the cited reference must disclose each and every element of the presently claimed invention. Because the cited reference does not disclose, teach or even suggest the feature wherein "...the thermal conductive material is plasticized at a temperature in the range of 30-65°C " as specifically recited in claim 19, the Applicant respectfully requests withdrawal of the anticipation rejection.

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Additionally, the Applicant has amended claim 19 to include the subject matter of claim 12 specifically the features "wherein the unvulcanized ethylene-propylene-diene terpolymer organic material has a melting transition in the range of 30-70°C and a viscosity at 100°C is equal to or above 70,000cP, a weight ratio of the filler to the thermal conductive material is in the range of 30-90 weight %." Besides the plasticization temperature range, none of these further specific ranges and features are disclosed, taught or suggested in any manner by the applied reference.

The added subject matter from claim 12 includes the further features wherein "a weight ratio of the filler to the thermal conductive material is in the range of 30 % to 90 weight %. This high thermal conductivity of the fillers and a substantial portion of the material and the viscosity of the organic materials claimed at a 100°C being equal to 70,000cP is important so that even where the thermal conducting material is provided between an electronic component such as a CPU and a heat sink, the thermal conductive material of the present invention does not flow out from between the two elements. This claimed state of the material is very important because even where this material is placed in between a component such as a CPU and a heat sink, the material of the present invention will not flow out from in between the CPU and the heat sink. This in combination with the melting transition and the range of 30°C provides a particularly effective thermal conducting material between a heat sink and a heat generating component. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

Turning to the obviousness rejection of claims 11-13 and 19 under Paeglis et al. '516, the Applicant takes issue with the Examiner's assertion that the recited range would be inherent. Even if the broad generalization which the Examiner asserts is true, and the Applicant is not aware of any evidence which would support such a fact "[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient [to establish inherency.]" In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981) (citations omitted) "That which may be inherent is not necessarily known. Obviousness cannot be predicated on what

is unknown." In re Spormann, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966). Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection. See In re Newell, 891 F.2d 899, 901, 13 USPQ2d 1248, 1250 (Fed.Cir. 1989).

To establish inherency, the extrinsic evidence must make clear that the missing descriptive material is necessarily present in the thing described in the reference, and that it would be recognized by persons of ordinary skill..."However, inherency may not be established by probabilities or possibilities." In re Robertson, (Fed. Cir. 1999). The Applicant can find no evidence, extrinsic or otherwise in the applied Paeglis et al '516 reference which would lead one of skill in the art to achieve or understand that the range as claimed would be known from the applied reference and thus the Applicant does not believe that Paeglis et al '516 contains the evidence necessary to render the presently recited invention as obvious, particularly in light of the addition of the subject matter of claim 12. Therefore the Applicant also respectfully requests withdrawal of the obviousness rejection.

Claims 11-13 and 19 are rejected, under 35 U.S.C. § 102, as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Davis et al. '661. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

The Applicant notes the Davis et al. '661 specification at column 7, lines 58-65, indicates that curing, i.e. the cross linking of the sulphur in the EPDM flashing should cure slowly and preferably at temperatures of at least 68°C or higher. The Applicant has made a thorough study of Davis et al. '661 and can find no correlation based on actual or inherent evidence between the curing of the particularly claimed EPDM and the plasticization range as particularly recited in the present invention.

Again, as the Examiner is aware in order to properly support an anticipation rejection under 35 U.S.C 102(b), the cited reference must disclose each and every element of the presently claimed invention. After a thorough study of this reference, the Applicant can find no

disclosure, teaching or suggestion that this composition would plasticize at 30°C to 50°C as noted by the Examiner, nor is the Applicant aware of any noted correlation or formula which would inherently indicate that the plasticization occurs at 30°C to 50°C as noted by the Examiner. Because the cited reference Davis et al. '661 does not disclose, teach or even suggest the feature wherein "...the thermal conductive material is plasticized at a temperature in the range of 30-65°C " as specifically recited in claim 19, the Applicant respectfully requests withdrawal of the anticipation rejection.

Additionally, the Applicant has amended claim 19 to include the subject matter of claim 12 specifically the features "wherein the unvulcanized ethylene-propylene-diene terpolymer organic material has a melting transition in the range of 30-70°C and a viscosity at 100°C is equal to or above 70,000cP, a weight ratio of the filler to the thermal conductive material is in the range of 30-90 weight %. " Besides the plasticization temperature range, none of these further specific ranges and features are disclosed, taught or suggested in any manner by the applied reference, and thus the Applicant again respectfully requests withdrawal of the anticipation rejection in view of Davis et al. '661.

The added subject matter from claim 12 includes the further features wherein "a weight ratio of the filler to the thermal conductive material is in the range of 30 %to 90 weight %. This high thermal conductivity of the fillers and a substantial portion of the material and the viscosity of the organic materials claimed at a 100°C being equal to 70,000cP is important so that even where the thermal conducting material is provided between an electronic component such as a CPU and a heat sink, the thermal conductive material of the present invention does not flow out from between the two elements. This claimed state of the material is very important because even where this material is placed in between a component such as a CPU and a heat sink, the material of the present invention will not flow out from in between the CPU and the heat sink. This in combination with the melting transition and the range of 30°C provides a particularly effective thermal conducting material between a heat sink and a heat generating

component. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

Turning to the obviousness rejection of claims 11-13 and 19 under Davis et al. '661, the Applicant also takes issue with the Examiner's assertion that the recited range would be inherent. Even if the broad generalization which the Examiner asserts is true, and the Applicant is not aware of any evidence which would support such a fact "[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient [to establish inherency.]" In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981) (citations omitted) "That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown." In re Spormann, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966). Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection. See In re Newell, 891 F.2d 899, 901, 13 USPQ2d 1248, 1250 (Fed.Cir. 1989).

To establish inherency, the extrinsic evidence must make clear that the missing descriptive material is necessarily present in the thing described in the reference, and that it would be recognized by persons of ordinary skill..."However, inherency may not be established by probabilities or possibilities." In re Robertson, (Fed. Cir. 1999). The Applicant can find no evidence, extrinsic or otherwise in the applied Davis et al. '661 reference which would lead one of skill in the art to achieve or understand that the range as claimed would be known from the applied reference and thus the Applicant does not believe that Davis et al. '661 contains the evidence necessary to render the presently recited invention as obvious, particularly in light of the addition of the subject matter of claim 12. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

Claims 11-13, 16, 17 and 19 are rejected, under 35 U.S.C. § 102, as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Nguyen et al. '422. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

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Similar to the previously discussed references, the Applicant's review of Nguyen et al. '422 fails to reveal any disclosure, teaching or suggestion with respect to the melting transition in the range of 30°C to 65°C as recited in claim 19. As the Examiner is aware in order to properly support an anticipation rejection under 35 U.S.C 102(b), the cited reference must disclose each and every element of the presently claimed invention. Because the cited reference does not disclose, teach or even suggest the feature wherein "...the thermal conductive material is plasticized at a temperature in the range of 30-65°C " as required by law, the Applicant respectfully requests withdrawal of the anticipation rejection. .

Additionally, the Applicant has amended claim 19 to include the subject matter of claim 12 specifically the features "wherein the unvulcanized ethylene-propylene-diene terpolymer organic material has a melting transition in the range of 30-70°C and a viscosity at 100°C is equal to or above 70,000cP, a weight ratio of the filler to the thermal conductive material is in the range of 30-90 weight %." None of the specific ranges and features are disclosed, taught or suggested by the applied reference, and thus the Applicant respectfully requests withdrawal of the anticipation rejection in view of Nguyen et al. '422.

The added subject matter from claim 12 includes the further features wherein "a weight ratio of the filler to the thermal conductive material is in the range of 30 %to 90 weight %. This high thermal conductivity of the fillers and a substantial portion of the material and the viscosity of the organic materials claimed at a 100°C being equal to 70,000cP is important so that even where the thermal conducting material is provided between an electronic component such as a CPU and a heat sink, the thermal conductive material of the present invention does not flow out from between the two elements. This claimed state of the material is very important because even where this material is placed in between a component such as a CPU and a heat sink, the material of the present invention will not flow out from in between the CPU and the heat sink. This in combination with the melting transition and the range of 30°C provides a particularly effective thermal conducting material between a heat sink and a heat generating

component. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

Turning to the obviousness rejection of claims 11-13 and 19 under *Nguyen et al.* '422, the Applicant takes issue with the Examiner's assertion that the recited range would be obvious. The Examiner is first reminded that when rejecting claims under 35 USC § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed.Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the Applicant. *Id.* Further, "[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed.Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA) 1976)). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed.Cir. 1988).

A thorough study of the applied reference fails to reveal any disclosure, teaching or suggestion relating to the specifically claimed plasticization range of claim 19. The Applicant can find no evidence, extrinsic or otherwise in the applied *Nguyen et al.* '422 reference which would lead one of skill in the art to achieve or understand that the range as claimed would be known from the applied reference. Thus, the Applicant does not believe that *Nguyen et al.* '422 contains the evidence necessary to render the presently recited invention as obvious, particularly in light of the addition of the subject matter of claim 12.

Claim 12 includes the further features wherein "a weight ratio of the filler to the thermal conductive material is in the range of 30 %to 90 weight %. This high thermal conductivity of the filler and a substantial portion of the material and the viscosity of the unvulcanized ethylene-propylene-diene terpolymer organic material claimed at a 100°C being equal to 70,000cP is important so that even where the thermal conducting material is provided between an electronic component such as a CPU and a heat sink, the thermal conductive material of the present

invention does not flow out from between the two elements. This claimed state of the material is very important because even where this material is placed in between a component such as a CPU and a heat sink, the material of the present invention will not flow out from in between the CPU and the heat sink. This in combination with the melting transition and the range of 30°C provides a particularly effective thermal conducting material between a heat sink and a heat generating component. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

Claims 11-13, 16, 17 and 19 are rejected, under 35 U.S.C. § 103, as being unpatentable over Duvall et al. and in view of Nguyen or Paeglis et al. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

Even if it is true that Duvall '442 teaches employing a synthetic rubber, and the Applicant's unvulcanized rubber is known in the art as a synthetic rubber so that a combination of these references is proper, none of the references, Duvall et al., Nguyen or Paeglis et al. provide any disclosure, teaching or suggestion to support the contention that the recited plasticization range as recited in claim 19 would be obvious.

When rejecting claims under 35 USC § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed.Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the Applicant. *Id.* Further, "[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed.Cir. 1993) (quoting In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA) 1976)). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed.Cir. 1988).

A thorough study of the applied reference fails to reveal any disclosure, teaching or suggestion relating to the specifically claimed plasticization range of claim 19. "...the mere fact

that those disclosures can be combined does not make the combination obvious unless the art also contains something to suggest the desirability of the combination." In re Imperato, 179 USPQ 730, 732 (Decided November 15, 1973) (CCPA 1973). The Applicant can find no evidence, extrinsic or otherwise in the applied Nguyen et al. '422 reference which would lead one of skill in the art to achieve or understand that the range as claimed would be known from the applied reference. Thus, the Applicant does not believe that Nguyen et al. '422, Duvall et al. '442 or Paeglis et al. '516, either alone or in combination contain the evidence necessary to render the presently recited invention as obvious, particularly in light of the addition of the subject matter of claim 12.

The added subject matter from claim 12 includes the further features wherein "a weight ratio of the filler to the thermal conductive material is in the range of 30 %to 90 weight %. This high thermal conductivity of the fillers and a substantial portion of the material and the viscosity of the organic materials claimed at a 100°C being equal to 70,000cP is important so that even where the thermal conducting material is provided between an electronic component such as a CPU and a heat sink, the thermal conductive material of the present invention does not flow out from between the two elements. This claimed state of the material is very important because even where this material is placed in between a component such as a CPU and a heat sink, the material of the present invention will not flow out from in between the CPU and the heat sink. This in combination with the melting transition and the range of 30°C provides a particularly effective thermal conducting material between a heat sink and a heat generating component. Therefore the Applicant respectfully requests withdrawal of the obviousness rejection.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised anticipation and obviousness rejection(s) should be withdrawn at this time. If the

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Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 32,018
Customer No. 020210
Davis & Bujold, P.L.L.C.
Fourth Floor
500 North Commercial Street
Manchester NH 03101-1151
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@davisandbujold.com